

A2LA Assessor Environmental Method Checklist

pH

Item	Section 1 - Personnel	Reference	Yes-No or NA	
1.1	Does the analyst(s) interviewed meet the job description position requirements, training and qualifications for performing the test? Supervisor: _____ Technician: _____	(G25)6.1		

Item	Section 2 - Equipment & Facilities	Reference	Yes-No or NA	
2.1	Is a pH meter consisting of a potentiometer, glass electrode, reference electrode and temperature compensation device available for use?	(SM18)4500H+B,2.a (1992)		
2.2	Are electrodes kept wet by placing in a storage solution when not in use?	(SM18)4500H+B,4.a (1992)		
2.3	Are the buffers traceable to NIST when used in situations where extreme accuracy is needed?	(SM18)4500H+B,1.a (1992)		
2.4	Is a magnetic TFE-coated stirring bar or mechanical stirrer with inert plastic coated impeller available for use?	(SM18)4500H+B,2.e (1992)		
2.5	Is each batch of pH paper calibrated with NIST traceable buffers or a calibrated pH meter?	(SW846)9041A,5.1 (7/92)		

Item	Section 3 - Method	Reference	Yes-No or NA	
3.1	Are the electrodes removed from the storage solution, rinsed, blotted dry with soft tissue and placed in initial calibration buffer solution before use?	(SM18)4500H+B,4.a (1992)		
3.2	Are the buffer temperature and sample temperature the same?	(SM18)4500H+B,4.b (1992)		
3.3	Is the temperature of each sample measured and documented?	(SM18)4500H+B,1.b (1992)		
3.4	Is a "low sodium error" electrode used for pH values over 10?	(SM18)4500H+B,1.a (1992)		

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3.5	Are the buffers fresh?	(SM18)4500H+B,3.a (1992)		
3.6	Are the buffers that are used for routine use validated by comparison to NIST standards?	(SW846)9045C,5.4 (1/95)		
3.7	Is the instrument calibration performed with at least two buffer solutions?	(SM18)4500H+B,4.a (1992)		
3.8	Is the buffer solution for the third standard within 0.1 pH units for the pH of the buffer solution?	(SM18)4500H+B,4.a (1992)		
3.9	Is the sample stirred gently to insure homogeneity and establish equilibrium?	(SM18)4500H+B,4.b (1992)		
3.10	Is 20g of waste or soil used for analysis?	(SW846)9045C,7.3 (1/95)		

Item	Section 4 - Sample Handling Practices	Reference	Yes-No or NA	
4.1	Are aqueous samples analyzed immediately after sampling?	(CFR136)TableII(1/94)		
4.2	Are soil and waste samples analyzed as soon as possible after sampling?	(SW846)9045C,6.2 (1/95)		

Item	Section 5 - Quality Control Practices	Reference	Yes-No or NA	
5.1	Are the pH values corrected when the sample temperature and buffers differ by more than 2°C?	(SW846)9045C,7.2.4 (1/95)		
5.2	Is the meter calibrated using at least two points that bracket the range of the samples measured?	(SW846)9045C,7.1.2 (1/95)		
5.3	Are duplicates analyzed at least 5% or more of the samples?	(SM18)1020B,6(1992)		
5.4	Are successive aliquots of the sample measured until values differ by less than 0.1 pH units?	(SW846)9040B,7.4 (1/95)		